----------UNDERSTANDING FUNCTIONS-------

***Basic Theory**: About Functions, it's element and category*

*Each question should contain your details **(name, faculty, roll number)** in documentation section, Source code and Output.*

1. WAP to program to calculate Sum, Difference, Product and Division of two number using functions.

2. Write a menu driven program using function to calculate:
    1. Palindrome Number (with argument & no return type)
    2. odd/even (no argument, no return type)
    3. Factorial (no argument, return type)
    4. Sum of n natural numbers (with argument and return type)

3. Write a menu driven program using function to calculate:
    a. Count number of digits in numbers (with argument and return type)
    b. Find reverse of number (without argument and return type)
    c. Check for prime or not (with argument and no return type)
    d. Check for Armstrong or not. (With no argument and no return type)

4. WAP to evaluate following series using function (don't use math.h).
    a. 1! + 2! + 3! + 4! +.....
    b. x - $\frac{x^3}{3!} + \frac{x^5}{5!} - \frac{x^7}{7!} + \frac{x^9}{9!}$ ... .
    c. 1 - $\frac{x^2}{2!} + \frac{x^4}{4!} - \frac{x^6}{6!} + \frac{x^8}{8!}$ ... .

5. WAP to calculate factorial of a number using recursion.

6. WAP to calculate x to the power y using recursion.

7. WAP to generate Fibonacci series up to n term using recursion.

8. WAP to calculate sum of n natural number using recursion.

9. WAP to generate Fibonacci series up to n terms where first and second term od series is given by user using recursion.